



SWEPI LP

2100 Georgetown Dr, Suite 400
Sewickley, PA 15143
724-933-4979

April 22, 2013

Center Township, Butler County
419 Sunset Dr.
Butler, PA 16001

COPY

Attn: Richard Round, Building Code Official / Zoning Officer

Subject: Renick 3468 Well Site – Notification of Activity

Dear Mr. Round:

SWEPI LP (Shell) recently submitted a zoning permit application for the Renick 3468 unconventional natural gas well site. One of the requirements in Chapter 20 of the Center Township ordinance is to provide notification to the Township at least 60 days prior to conducting operations outside of normal hours (weekdays and Saturdays between 6AM and 9 PM). The purpose of this letter is to describe our development plans based on our current internal schedules, and to obtain written permission to conduct operations outside of normal hours for various stages of our operations described below. Please note that the timeframes identified in the schedule below are estimates and are subject to change. Shell plans the following stages of activity at the Renick 3468 well pad.

Stage One ~ Construction

When we start work at a new well site, we first install erosion and sediment controls, followed by grading of the well pad. Then the well pad and driveway surfaces are prepared through subbase stabilization and placement of stone. The construction stage also includes installation of the surface casing using the conductor rig, which is the smallest drill rig used. The conductor rig essentially creates the “starter hole” in the ground and lines the hole with pipe.

- Duration: Three to six weeks
- Approximate timeframe: May 15, 2013 through July 15, 2013
- Construction activities are performed in daylight hours. Truck traffic will be restricted to weekdays and Saturdays

Stage Two ~ Top Hole Drilling (two wells)

The conductor rig is followed by another small rig called a top hole rig, which begins drilling the vertical section of the well. It usually takes 4 to 7 days to drill one well using this small rig. The only caveat is when we drill into the Utica. In that case we may skip the top hole rig and proceed directly to stage three.

Depending on the number of wells planned on a single well pad, the drilling time will vary.

- Duration: Two to four weeks
- Approximate timeframe: July 8, 2013 through August 15, 2013
- Top hole drilling is usually performed in daylight hours, and activity continues through the weekends, possibly including Sundays



Stage Three ~ Horizontal Drilling Rig (two wells)

The next stage involves the Horizontal Drilling Rig, which is also referred to as “The Big Rig”. This larger rig drills the remaining vertical and horizontal portions of the well. It can typically take between ten days to one month to drill a single horizontal well. Again, in the case of multiple wells on a well pad, the time on location may be extended. Due to the rig’s size, it can take several days to set up and dismantle the rig in order to move from one well pad to another.

During this stage, drilling activities are conducted 24 hours a day, seven days a week. About 12 individuals will remain on site for the duration of the horizontal drilling. Lights from the drilling rig can be seen at night, and there is an increase in truck activity.



- Duration: Six to twelve weeks – This approximate duration is based upon the fact that the Renick wells are exploratory wells and require time to gather geologic information.
- Approximate timeframe: July 1, 2013 through October 31, 2013.
- Drilling operations, including truck traffic and site activity, continue 24 hours a day, seven days a week.

Stage Four ~ Completions (Hydraulic Fracturing – two wells)

The completions stage is when the well is stimulated, or hydraulically fractured. Stimulating the well is what makes it possible for the natural gas to flow. As illustrated in the picture, this stage involves the most activity and equipment. Trucking activity is at its peak during this stage. Most of the trucks will be transporting storage tanks to hold both fresh and produced water, as well as sand. Some of the trucks staged on location provide the necessary power to stimulate the well by fracturing the shale and using hydraulic fracturing fluids to hold the small fractures in the rock open.



The completions stage takes place in three phases of activity including the hydraulic fracturing described above, “drill out” of the plugs placed in the well during hydraulic fracturing using a small rig, and installation of production tubing (plastic pipe that is used to carry produced natural gas to the surface).

Completions are a 24/7 operation.

- Duration: Two to Six weeks
- Approximate timeframe: October 1, 2013 through December 31, 2013
- Completions continue 24 hours a day, seven days a week

Stage Five ~ Flaring

The final stage in drilling and testing exploratory wells is flaring. Flaring allows us to test the gas flow in order to estimate the well’s production potential. Flaring is used when the gas is not yet suitable to go directly into a pipeline.

A flare is a slender 30 – 40 foot high vertical pipe with a flame at the top. The flame can be up to 40 feet high and usually lasts for one month. For exploratory wells, the flame can last longer than one month.



- Duration: four to twelve weeks.
- Approximate timeframe: December 1, 2013 through March 31, 2014.
- Flaring continues 24 hours a day, seven days a week.

Hopefully this helped provide a high level overview of our activities and what you can expect to see on the Renick 3468 well pad. Please provide written permission for truck traffic and site activity as described above, all of which are the normal and necessary operations of oil and gas drilling targeting unconventional formations. We will endeavor to keep you informed of changes to our schedules. If you have any questions or require clarification, please feel free to contact me or call the Shell Appalachia Call Center at 877-842-7308.

Regards,



H. James Sewell
Environmental and Regulatory Team Leader

CC: Center Township Supervisors

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS MANAGEMENT



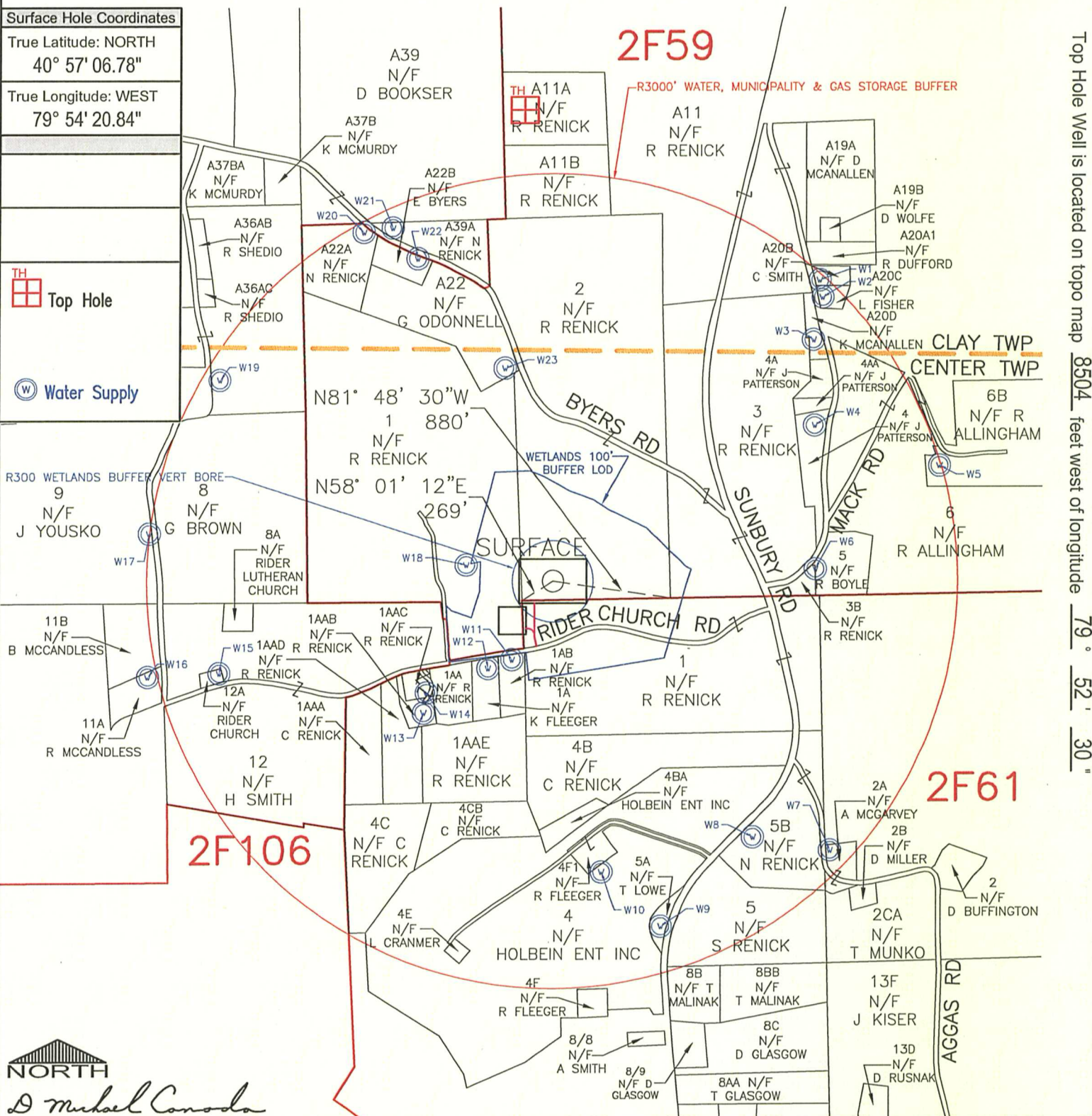
PERMIT APPLICATION TO DRILL AND OPERATE AN UNCONVENTIONAL WELL

Notes		DEP USE ONLY	
OGO #	Client Id	Objection Date - Do not issue before:	API #s37- _____; _____; _____; _____; _____
Bond #	C: _____ G: _____	Date Approved:	Watershed Name: Designation: <input type="checkbox"/> HQ <input type="checkbox"/> EV
INV:	Special Cond.		
APS #	Auth Id	Site Id	PF Id SF Id

Please read instructions before you begin filling in this form.

WELL INFORMATION									
Well Operator SWEPI LP		DEP ID# 284309		Well API # (if available) 37- - -		Well Farm Name Renick		Well # 3468-1X	
Address 2100 Georgetown Drive, Suite 400				LAT _____ LONG - _____		NAD 83		Project Number Serial #	
City Sewickley		State PA		Zip 15143		Municipality Name/ City, Borough, Township Center Township		County Butler	
Phone 724-933-5300		Fax 724-933-4899		Email Jason.Shoemaker@shell.com		USGS 7.5 min. quadrangle map Mount Chestnut		Section 6	
<input checked="" type="checkbox"/> Check if this is a new address				24/7 Emergency Phone contact number 877-320-7307		911 address of well site (if available) PENDING			
Freshwater Impoundment Name/ Identification TBD		Centralized Impoundment Name/ Identification N/A		Well Pad (cluster) Name/Identification Renick 3468		Borrow Area Name/Identification N/A			
Surface Elev 1311		Deepest Formation to be penetrated: Marcellus		Anticipated TVD 5775		PERMIT TYPE Check applicable. Application is to: <input checked="" type="checkbox"/> Drill a new well <input type="checkbox"/> Re-permit expired permit <input type="checkbox"/> Deepen well <input type="checkbox"/> Redrill wellbore <input type="checkbox"/> Alter well <input type="checkbox"/> Other (specify)		TYPE OF WELL Check applicable. <input checked="" type="checkbox"/> Gas <input type="checkbox"/> Oil <input type="checkbox"/> Comb. (gas & oil/condensate) <input type="checkbox"/> Other (specify)	
Target Formation(s) proposed for production Marcellus		Anticipated Target Top/Bottom TVD 5650 5775		Number of wellbore laterals proposed under this application 1		Total feet of wellbore to be drilled under this application 5775 Ft.		APPLICATION FEE Check applicable. <input checked="" type="checkbox"/> Marcellus I <input type="checkbox"/> Unconventional Total Application Fee \$ 2,050.00	
If applying for a permit to rework an existing well not registered or permitted, check this box <input type="checkbox"/> and enter date drilled, if known: _____ (see instructions)						Configuration <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Horizontal <input type="checkbox"/> Deviated <input type="checkbox"/> Multiple laterals		Bond Agreement Id 12744	
PNDI Attached: <input checked="" type="checkbox"/> Any threatened or endangered "hit" must include a copy of the clearance letter from the applicable agency(ies).									
Application submitted as: Coal well: <input type="checkbox"/> Attach Coal Module CBM well <input type="checkbox"/> Attach Coal Module Non coal well <input checked="" type="checkbox"/> Attach justification.									
COORDINATION WITH REGULATIONS AND OTHER PERMITS								Yes	No
1. Will the well be subject to the Oil and Gas Conservation Law? If "No," go to 2).								<input type="checkbox"/>	<input checked="" type="checkbox"/>
a. If "Yes" to #1, is the well at least 330 feet from outside lease or unit boundary?								<input type="checkbox"/>	<input type="checkbox"/>
b. Does the location fall within an area covered by a spacing order?								<input type="checkbox"/>	<input type="checkbox"/>
c. If the well will be multilateral, identify the wellbores on the sketch on page 3 of the plat that will be completed as conservation and non-conservation.									
2. Will either the edge of the disturbed area of any portion of the well site of the unconventional well be within 100 feet, or the vertical well bore be within 300 feet, from the edge of any solid blue lined stream, spring or body of water identified on the most current 7½' topographic quadrangle map or wetland greater than one acre in size or in a wetland?								<input type="checkbox"/>	<input checked="" type="checkbox"/>
If yes, is a waiver request (form 5500-FM-OG0057) and site-specific E&S control plan attached?								<input type="checkbox"/>	<input type="checkbox"/>

Top Hole Well is located on topo map 2349 feet south of latitude 40 ° 57 ' 30 " parcel lines taken from tax map information



Top Hole Well is located on topo map 8504 feet west of longitude 19° 52' 30

Applicant / Well Operator Name: SWEPI LP			DEP ID#: 284309		Well (Farm) Name: RENICK			Well #: 3468-1X			
Address: 190 Thorn Hill Road, Warrendale, PA 15086					County: BUTLER		Municipality: CENTER		Well Type: Gas		
911 Address of well site: PENDING					USGS 71/2 Quadrangle Map Name: MOUNT CHESTNUT				Map Section: 6		
									Surface Elevation: 1311 ft.		
Surveyor: Pa. Lic. # SU029272 E D. Michael Canada		Phone #: 716-379-7918		Dwg #: 20121213 B		Date: FEBRUARY 8, 2013		Scale: 1" = 1000'		Tract Acreage: 73	
Lat. & Long Metadata Method: RTK GPS		Accuracy: ± 5 ft.		Datum: NAD 83		Elevation Metadata Method: GPS		Accuracy: ± 5 ft.		Datum: NAD 83	
Survey Date: FEBRUARY 13, 2012											